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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/872,039	06/01/01	JUNG	W JYL10B

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EXAMINER

KIM, P

ART UNIT

PAPER NUMBER

2857

DATE MAILED:

10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/872,039

Applicant(s)

JUNG ET AL.

Examiner

Paul Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 40 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With reference to claim 40, terminology, "synchronized" and "corresponding" in line 3 was not clearly defined in the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With reference to claim 40, the terminology, "synchronized" and "corresponding" in line 3 is indefinite.

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 2-7, 40, and 45-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Aken et al.

With reference to claim 2, Van Aken teaches a method for remotely controlling a spectral measuring device comprising the steps of providing a first system (fig. 1, part 20), generating operational commands from a second system remote from the first (col. 2, lines 63-66), transmitting commands from the second system to the first system (fig. 1, part 36), receiving commands with the first system (col. 3, lines 15-19), and spectral measurements being made in a location remote from the second location in accordance with the operational commands transmitted from the second location (fig. 1, part 24).

With reference to claim 3, Van Aken teaches the connection being a network connection or other types of connections (col. 3, lines 3-5).

With reference to claim 4, Van Aken teaches the connection being a dial-in connection (fig. 1, part 32).

With reference to claim 5, Van Aken teaches the connection being an Internet connection (col. 3, lines 3-5).

With reference to claim 6, Van Aken teaches the connection being a wide area network connection or other types of network connections (col. 3, lines 3-5).

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With reference to claim 7, Van Aken teaches the connection being an Internet connection (col. 3, lines 3-5).

With reference to claim 40, Van Aken teach the plurality of systems making spectral measurements in a corresponding or synchronized manner (fig. 1, parts 22 & 36)

With reference to claim 45, Van Aken teaches the second location providing color characteristics that correspond to spectral measurements made by the first system (fig. 2A).

With reference to claim 46, Van Aken teaches a plurality of remote systems that have articles with color characteristics which correspond to spectral measurements made by the plurality of remote systems (col. 4, lines 19-21).

With reference to claim 47, Van Aken teaches a method of spectral analysis for measuring color values comprising the steps of providing a first system (fig. 1, part 20), making spectral measurements from a first system (fig. 1, part 24), transmitting spectral data produced by the first system to a second remote location (fig. 1, part 36), receiving spectral data at the second location (fig.1, part 10), and providing articles of color characteristics that correspond to spectral measurements made by the first system to the second system (col. 3, lines 48-59).

With reference to claim 48, Van Aken teaches a plurality of remote systems that have articles with color characteristics which correspond to spectral measurements made by the plurality of remote systems (col. 4, lines 19-21).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Aken as applied to claims 2-7, and further in view of official notice.

With reference to claim 8, Van Aken does not teach commands transmitted to the system via Internet web page. The examiner takes official notice that methods of transmitting commands from the Internet are well known in the art. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to transmit commands from the Internet to the spectral system in order to have users place commands from a remote location.

Claims 9-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Aken as applied to claims 2-7, and further in view of Gray et al. Gray teaches a method of predicting failure of a disk drive of a computer.

With reference to claim 9, Van Aken does not teach a diagnostic or test mode of operation in the first system. Gray teaches a diagnostic operation of a first computer system (fig. 5). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that a diagnostic can be performed on the first system in order to alert the user of any system malfunctions.

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With reference to claims 10 and 19, Van Aken does not teach the second location receiving and storing diagnostic data for the first system. Gray teaches providing diagnostic data to a second computer over a network (col. 11, lines 21-27). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that a diagnostic data can be sent to the second location in order to inform remote users of potential problems with the first system.

With reference to claims 11 and 20, Van Aken does not teach the diagnostic operation initiated periodically. Gray teaches diagnostics taking place periodically (col. 9, lines 18-22). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that a diagnosis can be performed periodically in order to make sure the system is performing properly at all times.

With reference to claims 12 and 21, Van Aken does not teach the diagnoses initiated periodically based on time. Gray teaches diagnostics taking place periodically based on time (col. 17, lines 21-22). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that a diagnosis can be performed based on time in order to keep track of a history of problems.

With reference to claims 13 and 22, Van Aken does not teach the second location storing data of the history of operation of the first system. Gray teaches storing data of a history of operation of the first system (col. 9, lines 9-10). It would have been obvious to one of ordinary skill in the art, at the time of

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invention, to modify Van Aken, so that a history of system operations can be stored in order to keep track of operating conditions.

With reference to claims 14 and 23, Van Aken does not teach the second location statistically processing the data indicative of history of operation of the first system. Gray teaches using statistical analyses to process data indicative of the history of operation of the first system (col. 6, lines 65-67). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that the second location statistically processes the data indicative of history of operation of the first system in order to compute predictions of future problems that may arise.

With reference to claims 15 and 24, Van Aken does not teach the second location predicting the need of servicing the first system. Gray teaches predicting the need of servicing a component of the first system (col. 5, lines 1-2). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that the second system predicts the need to service the first system in order to determine component failure ahead of time.

With reference to claims 16 and 25, Van Aken does not teach servicing including a lamp replacement, filter replacement, or other component servicing. Gray teaches servicing that includes system component replacement (col. 10, lines 29-32). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that servicing includes component replacement in order to keep the system running without extensive downtime.

With reference to claims 17 and 26, Van Aken does not teach a diagnostic message being displayed on the first system. However, it is inherent that a computer system displays malfunction codes on a computer screen whenever a problem occurs.

With reference to claims 18 and 27, Van Aken does not teach an electronic message being displayed. Gray teaches diagnostic data being transferred to the Internet (col. 11, lines 13-16). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that electronic messages can be displayed on the Internet in order to alert remote users of potential system problems.

Claims 28-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Aken as applied claims 2-7, and further in view of Slivka et al. Slivka teaches a method of identifying and obtaining computer software from a network.

With reference to claim 28, Van Aken teaches software being used to control color measurements of the first system (col. 4, lines 21-24) but does not teach commands transmitted to the first system including *software upgrade*. Slivka teaches a method for upgrading software from a host to a client system (fig. 2). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that software upgrades can be made to the first system or host system in order to provide a convenient method of upgrading software.

With reference to claims 29-38, Van Aken does not teach the software upgrade including bug fixes, color reference data, color and paint reference data,

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calibration data, signal processing parameter data, materials data, or various dental shade guide data. Slivka teaches upgrading software, in general, over a network (fig. 2). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that software upgrades can be made in order to provide up-to-date versions of software releases.

With reference to claim 39, Van Aken teaches spectral measurements being made within the first system based on processing carried out in accordance with signal processing parameters (col. 2, lines 28-34).

Claims 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Aken as applied claims 2-7, and further in view of Jung et al. Jung teaches a spectral measurement system.

With reference to claim 41, Van Aken does not teach the first system carrying out a calibration process with respect to relative movement of probe with respect to a calibration standard. Jung teaches carrying out a calibration process based on a position of the probe (col. 16, lines 1-7). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that calibration process could take place based on relative movement of probe in order to make accurate correct color measurements.

With reference to claim 42, Van Aken does not teach the probe's sensors detecting the physical position of the probe. Jung teaches the probe position being sensed (col. 10, lines 31-38). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that the

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position of the probe can be sensed in order to help make reliable color measurements.

With reference to claim 43, Van Aken does not teach the first system making spectral measurements based on calibration and positioning data from the sensors during the calibration process. Jung teaches measurements based on calibration and position data of sensors (col. 10, lines 35-38). It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify Van Aken, so that measurements are based on calibration and position data of sensors in order to make reliable color measurements.

With reference to claim 44, Van Aken teaches the system at the second location remotely controlling and monitoring data from the first system (fig. 1).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miesbauer et al, Grosse, Veltmann, and Rokunohe et al, discusses a machine diagnoses system. Feldman discusses an internal color probe.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is 703-305-7468. The examiner can normally be reached on Monday-Thursdays 10:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-305-1710. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-9722 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

PK
October 18, 2001


MARC S. HOFF
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